Exhibit 24

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

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)
ORACLE, INC.   )
)
　　　　　Plaintiff,   )
)
　　　v.   )　　Case No. CV 10-03561 WHA
)
GOOGLE INC.,   )
)
　　　　　Defendant.   )
_____)

HIGHLY CONFIDENTIAL

REPLY EXPERT REPORT OF DR. GREGORY K. LEONARD
IN RESPONSE TO EXPERT REPORT OF PROFESSOR JAMES R. KEARL

[CORRECTED]

agree on the calculation of Android-related profits. Despite these broad and important areas of

agreement, there are several areas related to implementation of the methodologies where I disagree

with Dr. Kearl. This being a reply report, I focus here mainly on these areas of disagreement.

B.   Search Ad TAC

6.   However, I start with clarifying information regarding the payment of TAC for search ads

placed on Android. Dr. Kearl identified this issue as an area of factual dispute in the case, noting that

there is disagreement between my analysis and the analysis of Oracle's expert James Malackowski

regarding how Google accounts for search ad TAC payments for Android.[2]

7.   In response to Dr. Kearl's commentary on and analysis of this dispute, I have double-

checked with Jonathan Gold of Google to confirm the following. First, Google does not, in fact, include

search ad TAC for Android in the line items on the Android P&L statement regarding digital content or

app cost of sales. In fact, only revenue sharing payments related to digital content or app purchases are

included in the digital content and app cost of sales. Second, search ad TAC for Android is included in

the Google-wide Adwords TAC line, as I stated in the Leonard Report. Third, Google may pay the carrier,

the OEM, or neither the carrier nor the OEM TAC for search ads served through an Android device,

depending on the contractual arrangements with the relevant carrier and OEM. Google negotiates with

each carrier and OEM separately on this issue, and there is no formula that governs its payment of

search TAC on Android devices.[3]

8.   The dispute Dr. Kearl identifies regarding search ad TAC payments,[4] stems in part from

evidence of the TAC payments that Google makes to "Non-Android Mobile Operating System Partners,"

as provided in the document "Charts per Dkt 1436." However, the "Charts per Dkt 1436" document was

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[2]   Corrected Kearl Report ¶¶ 25-27.

[3]   Interview of Jonathan Gold.

[4]   See also Corrected Responsive Expert Report of James E. Malackowski, February 29, 2016, ¶¶ 65-72.

created by Google in response to a Court order in this case, which order specifically instructed that the document should contain Google gross revenue amounts. Mr. Gold confirmed to me that Google complied with the Court's order, and that the information contained in the "Charts per Dkt 1436" document represents Google's gross revenue. The confusion and dispute regarding this issue thus results from Oracle's mistaken assumption that the data in the document represent Google's net revenue. As a result of this mistake, Oracle performed a number of adjustments: (1) taking the "Total Gross Revenue Earned by Google under the Agreement," (2) dividing it by one minus the "% of Search Revenue Google Shares with the Provider Pursuant to the Agreement," and (3) then multiplying the result by the "% of Search Revenue Google Shares with the Provider Pursuant to the Agreement." The resulting calculation purports to represent the TAC payments that Google makes to "Non-Android Mobile Operating System Partners," but is incorrect and misguided, because the adjustments were designed to "gross up" Google's gross revenues, which is unnecessary because, as noted, the source document already represents gross revenue. The correct calculation would have been to just multiply Google's gross revenue by the percentage of search revenue that Google shares with the partner under the agreement.[5]

C.   OpenJDK

9.   Dr. Kearl states that the fact that Google only recently switched to the OpenJDK versions of the 37 APIs and chose not to use the OpenJDK versions when it was developing Android "suggests that Google must have believed that the actual and expected costs of using OpenJDK were substantial."[6] I disagree. First, in terms of the incremental engineering costs of OpenJDK, Google has now actually incurred those costs in the course of implementing that solution, and Google's actual experience shows that its engineering costs were minimal, as I stated in the Leonard Report. Second, although Dr. Kearl

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[5]   Interview of Jonathan Gold.

[6]   Corrected Kearl Report ¶ 45.

F.   Google's Ability to Pick "Winners" Ex Ante

19.   Dr. Kearl suggests that Google would have had to train more developers or subsidize more app development than I estimated because it would not be known to Google ex ante which apps would turn out to be the valuable apps.[26] In his deposition, Dr. Kearl further states: "And that is, at the launch, at the outset, what were the expectations that Google had about how many apps it needed and how rapidly it needed to have them developed and so on. So it's not the ex post what happened. It's what – presumably what Google thought it needed at launch."[27] Dr. Kearl also states in his deposition that the Kim model suffers from the same ex post problem in that it "focuses on the winning apps, and not sort of the important, but not in the top – top 100 or 200 or 1,000."[28] However, in direct contradiction to these statements, Dr. Kearl states: "And the disgorgement is ex post, that is it looks at, you know, how much Google made from this."[29] I agree with Dr. Kearl that a disgorgement analysis is ex post, but that is one of the reasons why my use of the Kim model is appropriate. Indeed, the disgorgement/unjust enrichment question is how much of the actual (i.e., ex post) profit Google made that should be attributed to the SSO and declaring code of the 37 APIs. The actual profit Google made, in turn, depends on the actual (i.e., ex post) decisions by users to purchase Android handsets, which in turn may have been based in part on the apps actually (i.e., ex post) available and the value of those apps. This is exactly what the Kim model tests by relating users' actual decisions (as reflected in actual

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[26]   Corrected Kearl Report ¶ 50.

[27]   Deposition of James R. Kearl, March 23, 2016, p. 59. See also Deposition of James R. Kearl, March 23, 2016, pp. 29-30, 59-62, 66-67, 70-74, 80-81, 155 for Dr. Kearl's discussion regarding his opinion that what matters in addressing "the Oracle theory" of damages is the expected number of apps needed for platform success (ex ante) rather than the actual number of apps that were needed for platform success (ex post).

[28]   Deposition of James R. Kearl, March 23, 2016, p. 114.

[29]   Deposition of James R. Kearl, March 23, 2016, p. 181. Additionally, Dr. Kearl states: "And – and, second, disgorgement, as I understand the matter, relies on what's happened since. And, you know, four or five years ago, people were looking forward. It was less – you know, Android was not as successful. So the fact that Android has become successful has generated very large profits. It means that the disgorgement damages are really unrelated to what was going on in the first phase." (Deposition of James R. Kearl, March 23, 2016, p. 139.)

market shares) to actual characteristics of Android handsets and the value of Android applications

actually available. Moreover, Dr. Kim explicitly tested and found no evidence to support the hypothesis

that the total number of apps mattered, as opposed to the ex post value of the apps that appeared

(however briefly) on top 100 download lists.

20.   Moreover, Google was not operating in an informational vacuum, as Dr. Kearl assumes.

Instead, Google was operating in the wake of the iPhone, which was released at the beginning of 2007,

nearly two full years prior to the release of the first Android handset at the end of 2008 and nearly three

full years prior to the releases of the first broadly successful Android handsets at the end of 2009. In the

interim, Apple released several iterations of the iPhone, the iOS platform grew in size, and third-party

applications for iPhone became broadly available. Google needed only look at what apps were

successful and valued on the iPhone and then seek to offer the same or similar apps on Android.[30] This

is particularly true given that the large majority of multi-homed apps were developed first for the

iPhone and then ported over to Android.[31] Indeed, the two apps that Dr. Kearl points to—Bubble Mania

and Words with Friends—were developed on iOS before Android.[32] Similarly, Google could have looked

to see what apps were successful on other platforms, such as Microsoft.

21.   In fact, Google actually did look at what apps were successful and try to get the

developers to port the apps over to Android.[33] Dr. Kearl does not seem to be aware of this fact, which

demonstrates the real-world viability of the strategy I identified in the Leonard Report.
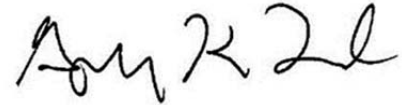
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[30]   Dr. Kearl agrees that Google could have tracked the top iPhone apps and then paid app developers to port
these apps over to Android. (Deposition of James R. Kearl, March 23, 2016, pp. 94-95.) Yet, he appears not to
have considered this important point when reaching the opinions expressed in his report.

[31]   Corrected Leonard Report, February 8, 2016, ¶¶ 112-113, 118. Based on the App Annie data, of the Android
apps launched in 2012, 77% were developed for iOS first.

[32]   App Annie database.

[33]   See, e.g., Deposition of Reto Meier, December 11, 2015, pp. 34 – 36.

alternative model of user demand or otherwise provided any concrete demonstration that any

supposed flaws in the Kim model actually matter. As a result, I find it baseless and troubling that there

should be any assertion that the Kim model does not provide information that is useful to analyzing the

issues in this case.

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Gregory K. Leonard

March 28, 2016